

## Relationship of Alcohol Craving to Symptoms of Posttraumatic Stress Disorder in Combat Veterans

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**Abstract:** To examine the relationship of alcohol craving to symptoms of posttraumatic stress disorder (PTSD), 129 male veterans with chronic PTSD were asked to complete the Obsessive Compulsive Drinking Scale (OCDS), the Mississippi Scale for combat-related PTSD symptoms, and other instruments to assess general psychopathology and lifetime alcohol and substance use. No correlations were found between current PTSD symptoms and alcohol craving, although significant correlations were found between the OCDS and measures of lifetime alcohol and substance use.

**Key Words:** PTSD, alcohol use, Obsessive Compulsive Drinking Scale

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Although posttraumatic stress disorder (PTSD) and alcohol abuse often occur together in veteran populations (Brown et al., 1998; Hankin et al., 1999), few studies have examined the relationship between alcohol craving and symptoms of PTSD or other psychological complaints in this subject group. Even though the relationship between PTSD symptom severity and alcohol craving has not been directly assessed previously, several studies have examined the relationships between exposure to trauma and subsequent alcohol and other substance use, but the results are mixed, with some studies suggesting a role for trauma exposure in increased substance use (Joseph et al., 1993), other studies showing that some PTSD subjects either do not differ or have even lower alcohol use than non-PTSD affected peers (Breslau et al., 2003; Op Den Velde et al., 2002), and yet other research showing that both increased and decreased use of alcohol may occur in individuals after involvement in traumatic events (North et al., 2002).

In our clinical experience, many combat veterans with chronic PTSD relate their desire for drinking to the severity of their PTSD symptoms. Because reliable and well-tested instruments such as the Obsessive Compulsive Drinking Scale (OCDS) are available to assess alcohol craving (Anton et al., 1996), we attempted to determine whether the relationship between alcohol craving and PTSD symptom severity was present in our clinical veteran population by asking subjects with chronic PTSD to report both their level of alcohol craving with the OCDS (Anton et al., 1996) and the

severity of their PTSD symptoms with the Mississippi Scale for combat-related PTSD symptoms and the Impact of Events Scale. To determine whether psychiatric symptoms other than PTSD symptoms were related to alcohol craving, we also administered the Beck Depression Inventory and the Brief Symptom Inventory. To examine whether combat exposure alone was related to alcohol craving, we administered the seven-question Combat Exposure Scale (CES). The Michigan Alcoholism Screening Test and Addiction Severity Index were also administered to assess briefly the patient's history of alcohol-related medical and social difficulties.

## METHODS

The study sample consisted of 129 consecutive male veteran patients presenting to a referral-based Veterans Administration residential PTSD program serving a four-state area. The Human Use Committee of the University of Arkansas for Medical Sciences approved the research protocol, and written informed consent was obtained from all subjects. All patients referred to the program carried a previous diagnosis of PTSD. This diagnosis was reviewed and validated by psychiatric interview using DSM-IV criteria on admission for all patients by a board-certified psychiatrist (either T. K. or T. F.). Subjects provided proof of military service (form DD-214) as a part of the program application process. Of the original 129 patients, 20 patients (16% of the original sample) tested below a sixth grade reading level, and their responses were excluded from the study. The 109 remaining subjects completed all the evaluations.

## RESULTS

Obsessive Compulsive Drinking Scale scores did not correlate significantly with PTSD symptoms as measured by the Mississippi Scale ( $r = 0.076$ ;  $p = .441$ ) or the Impact of Events Scale ( $r = 0.086$ ;  $p = .372$ ) or combat exposure as measured by the CES, although there was a trend toward a significant negative correlation with the CES ( $r = -0.175$ ;  $p = .069$ ). Neither depression as measured by the Beck Depression Inventory ( $r = -0.111$ ;  $p = .251$ ) nor general psychopathology as measured by the Brief Symptom Inventory global severity index ( $r = 0.144$ ;  $p = .136$ ) correlated significantly with the OCDS. However, after Bonferroni correction for multiple comparisons, OCDS scores did correlate significantly with Michigan Alcoholism Screening Test scores ( $r = 0.567$ ;  $p < .001$ ), years of alcohol use to intoxication ( $r = 0.265$ ;  $p = .006$ ), years of cocaine use to intoxication ( $r = 0.388$ ;  $p < .001$ ), and Addiction Severity Index alcohol composite scores ( $r = 0.543$ ;  $p < .001$ ).

## DISCUSSION

The lack of significant correlation among self-reported PTSD symptoms, combat exposure, and alcohol craving does not suggest that either current PTSD symptoms or past

combat exposure significantly affect alcohol craving in this patient population, at least at this time. In fact, a trend toward a negative correlation between current alcohol craving and past combat exposure was seen. This would suggest that findings of limited relationships between trauma exposure and alcohol use in other populations (North et al., 2002; Op Den Velde et al., 2002) hold in this population as well. Furthermore, there is no indication from these preliminary data that either depressive symptoms or the level of general psychopathology significantly affect alcohol craving.

It is clear that in this patient group, there is a strong relationship between past alcohol and drug use and current alcohol craving and no significant relationship between current alcohol craving and current self-reported symptoms of PTSD, past reports of combat exposure, depression, or general psychopathology. These findings are inconsistent with the hypothesis that subjects with chronic PTSD crave alcohol in relation to their PTSD symptoms (Jacobsen et al., 2001). However, we feel that these preliminary findings warrant further investigation in this patient group, for which there is growing evidence of a shared vulnerability for the association between PTSD symptoms and alcohol use (McLeod et al., 2001; Xian et al., 2000). Additionally, in this population in which alcohol use disorders are so common, the value of the OCDS in predicting future drinking behavior deserves further investigation.

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